

REMARKS/ARGUMENTS

Claims 25-46 are pending in the present application and stand rejected.

Claims 30, 35, 41, and 46 are objected to based upon informalities identified by the Examiner.

Claims 32-46 are rejected under the first paragraph of 35 U.S.C. 112 as failing to comply with the written description requirement.

Claims 32-46 are rejected under the second paragraph of 35 U.S.C. 112 based upon portions of the claim language identified by the Examiner.

Claims 25-46 are rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent 6,148,377 to Carter et. al (hereinafter "Carter").

Claims 27-29, 32-36, 38-40 and 43 are canceled without prejudice.

Claims 25-26, 30-31, 37, 41, and 44-46 are amended according to the specification. A clean copy of the claims is provided for convenience below. Support for the claim amendments can be found, among other places, at pages 3-4 of the application and as illustrated in the corresponding figures. No new matter has been added.

I. Objections to the Drawings

The drawings are objected to as failing to show local RAM 50-53 (referenced at page 3, paragraph [0018]) and local disk 84-87 (referenced at page 4, paragraph [0020]). Applicant respectfully directs the Examiner's attention to Figs. 1-2 where local RAM 50-53 elements are identified in the vicinity of the central FastLAN (Switch) element. Applicant thanks the Examiner for identifying a labeling error relating to the local disk elements. Paragraph [0020] is amended to correct this error. It is believed that all relevant features are now shown in one or more of the attached drawings. Accordingly, Applicant respectfully requests withdrawal of these objections.

II. Objections to the Claims

Claims 30, 35, 41, and 46 are objected to for failing to spell out acronyms as identified by the Examiner. Claim 35 is canceled. Claims 30, 41 and 46 are amended to correct these deficiencies. Withdrawal of the objections is respectfully requested.

III. Rejections under Section 112

Claims 32-43 are rejected under the first paragraph of 35 U.S.C. 112 as described by the Examiner. Claims 32-36, 38-40, and 43 are canceled. Therefore, the rejections as to these claims are moot. Claim 37 is amended to remove references to a "first plurality" and a "second plurality". Claims 41-42 depend from claim 37, and neither dependent claim includes limitations directed to the "first plurality" or the "second plurality". Accordingly, Applicant requests withdrawal of the rejections under the first paragraph of 35 U.S.C. 112.

Claims 32-43 are also rejected under the second paragraph of 35 U.S.C. 112 as described by the Examiner. Claims 32-36, 38-40, and 43 are canceled. Therefore, the rejections as to these claims are moot. Claim 37 is amended to change "said information network" to "said information backup system" for which there is a proper antecedent basis. Claims 41-42 depend from claim 37, and neither dependent claim includes limitations directed to the "information network". Accordingly, Applicant requests withdrawal of the rejections under the second paragraph of 35 U.S.C. 112.

IV. Rejections under Section 102

Claim 25

Claim 25 recites an information backup system comprising "a functionally coherent and physically distributed data storage device comprising a plurality of data storage portions each within a data storage device of a computer system among said plurality of computer systems, wherein said distributed data storage device responds to said disk I/O requests from said plurality of computers as a single logical disk." Applicant respectfully submits that Carter does not disclose an information backup system with at least these features.

Carter discloses a virtual memory system in which network resources are combined to form a shared addressable memory space. The system includes an operating system interface so that computers can access the network resources as virtual pages or segments of memory. See, Carter at col. 8, lines 28-47. Carter discloses that the virtual memory units can be allocated, locked, or mapped using standard memory management techniques. See, Carter at col. 8, lines 61-66. In this way, the system provides virtual memory resources to individual computers over the network.

By contrast, the present invention discloses an information backup system that responds to disk I/O requests as a single logical disk. As recited above, a plurality of computers connected to a communication network can direct disk I/O requests to other computers on the network. The networked computers cooperate to form a functionally coherent and physically distributed data storage device. The data storage device responds to disk I/O requests from the plurality of computers as a single logical disk. Carter's system does not disclose at least these features, as they are fully recited above, because this reference is concerned with providing virtual memory resources accessible through standard memory management techniques and not a single logical disk that is accessed using disk I/O routines.

Claims 26 and 30-31

Claims 26 and 30-31 depend from claim 25 and are believed allowable over Carter for at least the reason that they depend from an allowable base claim. In addition, claim 30 recites "wherein said functionally coherent and physically distributed data storage device is configured as a functionally coherent and physically distributed redundant array of independent disks (RAID) storage device" and this limitation is not found in the cited reference. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 25-26 and 30-31 based upon the preceding remarks.

Claims 37 and 44-46

Claims 37 and 44-46 each recite limitations similar to those discussed in connection with claim 25 and each is believed allowable over Carter for the reasons previously given. More specifically, claim 37 recites a method for operating an information backup system comprising "organizing into a unified logical disk storage device at least one data storage portion from each of a plurality of computer systems of said network; and performing disk I/O access to the unified data storage device". Claim 44 recites "a distributed data storage device...wherein said computer systems can perform disk I/O with said distributed data storage device as a single logical disk". Claim 45 recites "each computer system among said first subset further having second means for performing distributed data storage...wherein all of said second means cooperate to provide a distributed disk storage device, wherein said computer systems access said distributed disk storage device to perform disk I/O as a single logical disk." Claim 46

recites "providing disk I/O access to said distributed data storage device, wherein any of said plurality of computer systems can access said distributed data storage device as a single logical disk." Applicant submits that Carter does not disclose at least these limitations and respectfully requests reconsideration and allowance of the claims.

Claims 41-42

Claims 41-42 depend from claim 37 and are believed allowable over Carter for at least the reason that they depend from an allowable base claim. In addition, claim 41 recites "configuring said distributed data storage device as a distributed redundant array of independent disks (RAID) storage device" and this limitation is not found in the cited reference. Accordingly, Applicant requests reconsideration and allowance of claims 41-42.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



Steven A. Raney
Reg. No. 58,317

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 650-326-2422
SAR:mg
60945627 v1